

REMARKS

This application has been carefully studied and amended in view of the Office Action dated May 12, 2009. Reconsideration of that action is requested in view of the following.

The subject matter of Claims 21 and 24 have now been incorporated into parent Claim 14. Accordingly, Claims 21 and 24 have been canceled. Parent Claim 14 and its dependent Claims 15-20, 22-23 and 25-26 are now pending. Because amended parent Claim 21 now essentially corresponds to former Claim 24 the amendments to Claim 14 do not raise new issues. Accordingly, this amendment should be entered and Claim 14 and its dependent claims should be examined.

It is respectfully submitted that parent Claim 14 and its dependent claims are not anticipated by or obvious over Arnold. As pointed out in the prior amendment a main difference between the inventive process and the Arnold process is that by using a third column most of the water present in the formaldehyde, trioxane and water containing feed stream I can be removed as bottom withdrawal stream VI of the third distillation column, and that, as a consequence, the bottom withdrawal stream II of the first distillation column is comparatively rich in formaldehyde, which allows this formaldehyde-rich stream II to be directly recycled to the trioxane synthesis reactor without further concentration. According to the Arnold process, all of the water contained in the feed stream is removed via bottom withdrawal stream of the first column, which is consequently relatively rich in water, since Arnold uses only two columns instead of three columns.

In the Office Action Examiner Covington dismissed these distinctions by a conclusory statement that "It is noted that a multiple stage distillation with separation of particular components at various stages in the separation, distillating to a desired concentration and recycling of used and unreacted starting materials is readily envisaged and well within the ordinary skill of one in the chemical arts. Nothing patentable is seen in the cumulative use of known separation techniques".

Although Examiner Covington has reached the above conclusion, nothing in the record supports why it would be obvious to practice the claimed invention in view of Arnold to modify the Arnold process by adding a third column in order to obtain a bottom withdrawal stream of the first column more concentrated in formaldehyde which can be recycled to the trioxane synthesis.


Nevertheless, in order to advance the prosecution of this case parent Claim 14 has been amended, as noted above, to include such features as specifying the composition of feeding stream X to contain from 55 to 85% by weight of formaldehyde and from 15 to 45% by weight of water.

Clearly there would be no motivation for a person of ordinary skill in the art and consequently it would not have been obvious to such person to modify the Arnold process by adding a third column in order to obtain a bottom withdrawal stream of the first column more concentrated in formaldehyde which is recycled to the trioxane synthesis, much less with the characteristics of stream X.

In view of the above remarks and amendments it is respectfully submitted that parent Claim 14 and its dependent claims should be allowed. If Examiner Covington still concludes that these claims are not allowable then it is respectfully requested that this amendment should be entered for purposes of appeal since it narrows the issues by reducing the number of claims.

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Respectfully submitted,

By 
Harold Pezzner

Registration No.: 22,112
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P.O. Box 2207
Wilmington, Delaware 19899
(302) 658-9141
Attorney for Applicant